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=> file medline, uspatful, dgene, embase, wpids, biosis COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

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=> s (methanol-utilizing bacterium) 79 (METHANOL-UTILIZING BACTERIUM)

=> s l1 and (entner-doudoroff pathway) 1 L1 AND (ENTNER-DOUDOROFF PATHWAY)

=> d 12 ti abs ibib tot

ANSWER 1 OF 1 USPATFULL on STN L2

TI Method for producing L-amino acid using methylotroph

The present invention describes a method for producing an L-amino acid AR comprising culturing a microorganism having an ability to produce an L-amino acid in a medium, whereby the L-amino acid accumulates in the medium, and collecting the L-amino acid from the medium, whereby said microorganism comprises a methanol-utilizing bacterium having the Entner-Doudoroff pathway in which 6-phosphogluconate dehydratase activity and/or 2-keto-3-dexoy-6-phosphogluconate aldolase activity is enhanced.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2004:184552 USPATFULL

TITLE:

Method for producing L-amino acid using methylotroph

Gunji, Yoshiya, Kawasaki, JAPAN INVENTOR(S): Yasueda, Hisashi, Kawasaki, JAPAN

| PATENT INFORMATION | NUMBER | KIND | DATE | |
|--|---------------------------------|------|----------------------|--------------|
| PATENT INFORMATION: APPLICATION INFO.: | US 2004142435
US 2003-716473 | | 20040722
20031120 | (10 <u>)</u> |

NUMBER DATE Welcome to STN International! Enter x:x

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         NOV 10
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      8
         NOV 20
                 CA/CAplus to MARPAT accession number crossover limit increased
                 to 50,000
         DEC 01
                 CAS REGISTRY updated with new ambiguity codes
NEWS 9
NEWS 10 DEC 11
                 CAS REGISTRY chemical nomenclature enhanced
NEWS 11 DEC 14
                 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12
        DEC 14
                 GBFULL and FRFULL enhanced with IPC 8 features and
                 functionality
         DEC 18
                 CA/CAplus pre-1967 chemical substance index entries enhanced
NEWS 13
                 with preparation role
         DEC 18
                 CA/CAplus patent kind codes updated
NEWS 14
NEWS 15
         DEC 18
                 MARPAT to CA/Caplus accession number crossover limit increased
                 to 50,000
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         DEC 27
                 CA/CAplus enhanced with more pre-1907 records
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         JAN 08
                 CHEMLIST enhanced with New Zealand Inventory of Chemicals
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         JAN 16
                 CA/CAplus Company Name Thesaurus enhanced and reloaded
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                 IPC version 2007.01 thesaurus available on STN
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                 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
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                 CA/CAplus enhanced with patent applications from India
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                 PHAR reloaded with new search and display fields
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                 CAS Registry Number crossover limit increased to 300,000 in
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                 multiple databases
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              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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              STN Operating Hours Plus Help Desk Availability
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              Welcome Banner and News Items
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              For general information regarding STN implementation of IPC 8
NEWS X25
              X.25 communication option no longer available
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PRIORITY INFORMATION: JP 2002-336346 20021120

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: AJINOMOTO CORPORATE SERVICES, LLC, INTELLECTUAL

PROPERTY DEPARTMENT, 1120 CONNECTICUT AVE., N.W.,

WASHINGTON, DC, 20036

NUMBER OF CLAIMS: 6 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 1528

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 16:58:28 ON 22 FEB 2007)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS' ENTERED AT 16:59:41 ON 22 FEB 2007

L1 79 S (METHANOL-UTILIZING BACTERIUM)

L2 1 S L1 AND (ENTNER-DOUDOROFF PATHWAY)

=> s l1 and method

L3 16 L1 AND METHOD

=> s l1 and production

L4 30 L1 AND PRODUCTION

=> s 13 and 14

L5 11 L3 AND L4

=> s 15 and (modified)

L6 4 L5 AND (MODIFIED)

=> d l6 ti abs ibib tot

L6 ANSWER 1 OF 4 USPATFULL on STN

TI Novel lysine decarboxylase gene and method for producing L-lysine

AB A Methylophilus bacterium in which a gene having a nucleotide sequence identical to a DNA cording for a protein defined in the following (A) or (B) or a gene having homology to the DNA in such a degree that homologous recombination with the DNA occurs is disrupted, thereby expression of the gene is suppressed and the intracellular lysine decarboxylase activity is reduced or eliminated is cultured in a medium containing methanol as a major carbon source to produce and accumulate L-lysine in culture and the L-lysine is collected from the culture: (A) a protein which has the amino acid sequence of SEQ ID NO: 4; (B) a protein which has the amino acid sequence of SEQ ID NO: 4 including substitution, deletion, insertion or addition of one or several amino acid residues and has a lysine decarboxylase activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:292227 USPATFULL

TITLE: Novel lysine decarboxylase gene and method

for producing L-lysine

INVENTOR(S): Hirano, Seiko, Kawasaki-shi, JAPAN

Yasueda, Hisashi, Kawasaki-shi, JAPAN

NUMBER DATE

PRIORITY INFORMATION: JP 2003-47185 20030225

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: AJINOMOTO CORPORATE SERVICES, LLC, INTELLECTUAL

PROPERTY DEPARTMENT, 1120 CONNECTICUT AVE., N.W.,

WASHINGTON, DC, 20036

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 1576 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

1.6 ANSWER 2 OF 4 USPATFULL on STN

Method for producing L-lysine using methanol-TT

utilizing bacterium

L-Lysine is produced by culturing a methanol-utilizing AB bacterium which requires L-methionine for its growth and has an ability to produce L-lysine in a medium containing methanol as a main carbon source to produce and accumulate L-lysine in culture and

collecting the L-lysine from the culture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

2004:273798 USPATFULL ACCESSION NUMBER:

TITLE: Method for producing L-lysine using

methanol-utilizing bacterium

INVENTOR(S): Asahara, Takayuki, Kawasaki, JAPAN

Hirano, Seiko, Kawasaki, JAPAN Yasueda, Hisashi, Kawasaki, JAPAN

NUMBER KIND -----

US 2004214296 A1 20041028 US 2004-760283 A1 20040121 (10) APPLICATION INFO.:

NUMBER DATE -----PRIORITY INFORMATION: JP 2003-20513 20030129

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: AJINOMOTO CORPORATE SERVICES, LLC, INTELLECTUAL

PROPERTY DEPARTMENT, 1120 CONNECTICUT AVE., N.W.,

WASHINGTON, DC, 20036

NUMBER OF CLAIMS: EXEMPLARY CLAIM: LINE COUNT: 1429

PATENT INFORMATION:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- ANSWER 3 OF 4 USPATFULL on STN L6
- TI Genes involved in polysaccharide production and utilization
- AB An ability of a methanol-utilizing bacterium to produce a polysaccharide is improved or suppressed using a DNA encoding a protein selected from the group consisting of:
 - (A) a protein which has the amino acid sequence of SEQ ID NO: 2;
 - (B) a variant of a protein which has the amino acid sequence of SEQ ID NO: 2 comprising substitution, deletion, insertion or addition of one or several amino acid residues and has an activity for producing a polysaccharide;
 - (C) a protein which has the amino acid sequence of SEQ ID NO: 4; and

(D) a variant of a protein which has the amino acid sequence of SEQ ID NO: 4 comprising substitution, deletion, insertion or addition of one or several amino acid residues and has an activity for producing a polysaccharide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

2004:215462 USPATFULL ACCESSION NUMBER:

Genes involved in polysaccharide production TITLE:

and utilization thereof

Asahara, Takayuki, Kawasaki, JAPAN INVENTOR(S):

Yasueda, Hisashi, Kawasaki, JAPAN

KIND DATE NUMBER -----

US 2004166570 A1 20040826 US 2004-772271 A1 20040206 PATENT INFORMATION:

APPLICATION INFO.: A1 20040206 (10)

> NUMBER DATE -----

JP 2003-32075 20030210 PRIORITY INFORMATION:

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: AJINOMOTO CORPORATE SERVICES, LLC, INTELLECTUAL

PROPERTY DEPARTMENT, 1120 CONNECTICUT AVE., N.W.,

WASHINGTON, DC, 20036

NUMBER OF CLAIMS: EXEMPLARY CLAIM: LINE COUNT: 1180

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 4 OF 4 USPATFULL on STN LG

Method for producing L-amino acid using methylotroph ΤI

AΒ The present invention describes a method for producing an

L-amino acid comprising culturing a microorganism having an ability to produce an L-amino acid in a medium, whereby the L-amino acid

accumulates in the medium, and collecting the L-amino acid from the medium, whereby said microorganism comprises a methanol-

utilizing bacterium having the Entner-Doudoroff

pathway in which 6-phosphogluconate dehydratase activity and/or 2-keto-3-dexoy-6-phosphogluconate aldolase activity is enhanced.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:184552 USPATFULL

TITLE: Method for producing L-amino acid using

methylotroph

INVENTOR(S): Gunji, Yoshiya, Kawasaki, JAPAN

Yasueda, Hisashi, Kawasaki, JAPAN

NUMBER KIND DATE -----US 2004142435 A1 20040722 US 2003-716473 A1 20031120 (10) PATENT INFORMATION:

APPLICATION INFO.:

NUMBER DATE -----

PRIORITY INFORMATION: JP 2002-336346 20021120

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: AJINOMOTO CORPORATE SERVICES, LLC, INTELLECTUAL

PROPERTY DEPARTMENT, 1120 CONNECTICUT AVE., N.W.,

WASHINGTON, DC, 20036

NUMBER OF CLAIMS: 6 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

1528 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS' ENTERED AT 16:59:41 ON 22 FEB 2007

L1

79 S (METHANOL-UTILIZING BACTERIUM) 1 S L1 AND (ENTNER-DOUDOROFF PATHWAY) L2

L3 16 S L1 AND METHOD

30 S L1 AND PRODUCTION L4

11 S L3 AND L4 L_5

4 S L5 AND (MODIFIED) 1.6

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5 FILES SEARCHED...

1 L4 AND (INCREASE THE COPY NUMBER) L7

=> d 17 ti abs ibib tot

L7 ANSWER 1 OF 1 USPATFULL on STN

Method for producing L-amino acid using methylotroph ΤI

AB The present invention describes a method for producing an L-amino acid comprising culturing a microorganism having an ability to produce an L-amino acid in a medium, whereby the L-amino acid accumulates in the medium, and collecting the L-amino acid from the medium, whereby said microorganism comprises a methanol-utilizing

bacterium having the Entner-Doudoroff pathway in which 6-phosphogluconate dehydratase activity and/or 2-keto-3-dexoy-6phosphogluconate aldolase activity is enhanced.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:184552 USPATFULL

TITLE: Method for producing L-amino acid using methylotroph

INVENTOR(S): Gunji, Yoshiya, Kawasaki, JAPAN Yasueda, Hisashi, Kawasaki, JAPAN

NUMBER KIND DATE -----PATENT INFORMATION: US 2004142435 **A**1 20040722 APPLICATION INFO.: US 2003-716473 20031120 A1 (10)

NUMBER DATE -----20021120

PRIORITY INFORMATION: JP 2002-336346 DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: AJINOMOTO CORPORATE SERVICES, LLC, INTELLECTUAL PROPERTY DEPARTMENT, 1120 CONNECTICUT AVE., N.W.,

WASHINGTON, DC, 20036

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 1528

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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0 L3 AND (INCREASE COPY NUMBER)

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| DB=U | | | | | |
| <u>L7</u> | L6 and 11 | 0 | <u>L7</u> | | |
| <u>L6</u> | L5 and (increase copy number) | 2177 | <u>L6</u> | | |
| <u>L5</u> | L4 and (L-valine or l-isoleucine, or l-lysine) | 2310 | <u>L5</u> | | |
| <u>L4</u> | L3 and (L-amino acid production) | 90342 | <u>L4</u> | | |
| <u>L3</u> | (methanol-utilizing bacterium) | 107040 | <u>L3</u> | | |
| DB=Pc | GPB; PLUR=YES; OP=OR | | | | |
| <u>L2</u> | L1 and (methanlol-utilizing bacterium) | 7 | <u>L2</u> | | |
| <u>L1</u> | gunji.in. | 110 | <u>L1</u> | | |

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| L1 and (methanlol-utilizing bacterium) | 7 |

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<u>L1</u> gunji.in. 110 <u>L1</u>

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☐ 1. Document ID: US 20060019355 A1

L2: Entry 1 of 7

File: PGPB

Jan 26, 2006

PGPUB-DOCUMENT-NUMBER: 20060019355

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20060019355 A1

TITLE: L-Amino acid-producing microorganism and method for producing L-amino acid

PUBLICATION-DATE: January 26, 2006

INVENTOR-INFORMATION:

CITY STATE COUNTRY NAME Kawasaki-shi JP Ueda; Takuji Nakai; Yuta Kawasaki-shi JP Kawasaki-shi Gunji; Yoshiya JP Takikawa; Rie Kawasaki-shi JP Joe; Yuji Kawasaki-shi JP

US-CL-CURRENT: 435/106; 435/252.33

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Drawt De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
| | | | | | | | | | | | | |

☐ 2. Document ID: US 20050176121 A1

L2: Entry 2 of 7

File: PGPB

Aug 11, 2005

PGPUB-DOCUMENT-NUMBER: 20050176121

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050176121 A1

TITLE: Method for producing alcohol by using microorganism

PUBLICATION-DATE: August 11, 2005

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY
Takeshita, Ryo Kawasaki-shi JP
Yasueda, Hisashi Kawasaki-shi JP
Gunji, Yoshiya Kawasaki-shi JP

US-CL-CURRENT: 435/155; 435/170, 435/183

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw, De

☐ 3. Document ID: US 20050003495 A1

L2: Entry 3 of 7

File: PGPB

Jan 6, 2005

PGPUB-DOCUMENT-NUMBER: 20050003495

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050003495 A1

TITLE: Method for producing L-lysine or L-arginine by using methanol-assimilating

<u>bacterium</u>

PUBLICATION-DATE: January 6, 2005

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

<u>Gunji</u>, Yoshiya

Kawasaki

JP

Yasueda, Hisashi

Kawasaki

JΡ

US-CL-CURRENT: 435/115; 435/252.3

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw, De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
| | | | | | | | | | - | | | |

☐ 4. Document ID: US 20040146974 A1

L2: Entry 4 of 7

File: PGPB

Jul 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040146974

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040146974 A1

TITLE: Method for producing L-amino acid using methylotroph

PUBLICATION-DATE: July 29, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

Gunji, Yoshiya

Kawasaki

JP

Yasueda, Hisashi

Kawasaki

JР

US-CL-CURRENT: 435/69.1; 435/115, 435/193, 435/252.33, 435/320.1, 536/23.2

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw. De

☐ 5. Document ID: US 20040142435 A1

L2: Entry 5 of 7

File: PGPB

Jul 22, 2004

Page 3 of 4 Record List Display

PGPUB-DOCUMENT-NUMBER: 20040142435

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040142435 A1

TITLE: Method for producing L-amino acid using methylotroph

PUBLICATION-DATE: July 22, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY

Gunji, Yoshiya Kawasaki JP JP Yasueda, Hisashi Kawasaki

US-CL-CURRENT: 435/106

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw De

☐ 6. Document ID: US 20030124687 A1

L2: Entry 6 of 7

File: PGPB Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030124687

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030124687 A1

TITLE: Method for producing L-lysine or L-arginine by using methanol assimilating bacterium

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY

Kawasaki-shi Gunji, Yoshiya JΡ Yasueda, Hisashi Kawasaki-shi JP

US-CL-CURRENT: 435/115; 435/252.3, 435/320.1, 435/69.1, 530/350, 536/23.5

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw De

7. Document ID: US 20030113899 A1

L2: Entry 7 of 7 File: PGPB Jun 19, 2003

PGPUB-DOCUMENT-NUMBER: 20030113899

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030113899 A1

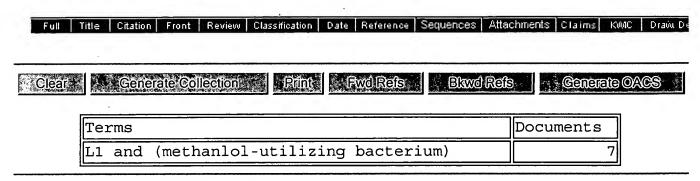
TITLE: Method for producing L-arginine

PUBLICATION-DATE: June 19, 2003

INVENTOR-INFORMATION:

STATE CITY COUNTRY NAME Yamaguchi, Mikiko Kawasaki-shi JΡ JΡ Ito, Hisao Kawasaki-shi JР Gunji, Yoshiya Kawasaki-shi Yasueda, Hisashi JΡ Kawasaki-shi

US-CL-CURRENT: 435/252.1; 435/252.33, 435/252.8



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